

Inspection Date: August 15, 2012
Start: 2:00 PM
Site: Jay Bee Oil and Gas – Nurses Hollow Impoundment
Location: Doddridge County, WV

The Nurses Impoundment Site (“Site”) is a lined freshwater pit/impoundment constructed by Jay Bee Oil and Gas (Jay Bee). The Site is located approximately 500 linear feet (lf) northwest of County Route 4/1 and Broad Run/County Route 4, Center Point, Doddridge County, WV 26339. The Site is located on an unnamed tributary to Broad Run. The unnamed tributary flows approximately 800 lf (0.15 miles) to Broad Run, then 2.3 miles to McElroy Creek, then 15.7 miles to Middle Island Creek, then 50.8 miles to the Ohio River. The nearest RHA Section 10 water that has been formally identified by the U.S Army Corps of Engineers (USACE), Huntington District, is Middle Island Creek, 12.0 miles above its mouth to the Ohio River. The distance from the Site to this traditional navigable water (TNW) point is approximately 57.0 river miles. However, a case can be made for the TNW point to be located further upstream. The West Virginia Division of Natural Resources (WV DNR) advertises 10 public access sites and 3 river float trips on Middle Island Creek. The Middle Island Creek public access site located farthest upstream is a carry-down ramp for small boats, located behind the Doddridge County High School football field, approximately 22.6 miles upstream of the McElroy Creek-Middle Island Creek confluence. The distance from the Site to this confluence is approximately 18.2 miles.

On August 15, 2012, representatives from the U.S. Environmental Protection Agency (“EPA”), the USACE Huntington District, and U.S. Fish and Wildlife Service (“USFWS”) conducted a Clean Water Act Section 404 inspection at the Site along with representatives of various programs of the West Virginia Department of Environmental Protection (“WVDEP”) See sign-in sheet for complete list of attendees. Company representatives were also present.

WVDEP had conducted aerial surveillance of natural gas drilling pads in the area, and identified this site as having potential 404 impacts. Photos of the Nurses Hollow Impoundment were sent to EPA on March 6, 2012 (aerial) and May 22, 2012 (on-site)(see attached).

Jay Bee representatives stated the impoundment is a “centralized pond” that serves several well sites including the Yeater Well Pad (EPA Docket No. CWA-03-2012-0087DW). They stated that water was piped from the impoundment to these locations. No wetland or stream delineations were conducted at the Site prior to construction. Construction started in late July/early August and was completed in late August/early September of 2010. At the time of the inspection, water level in the pit/impoundment was low. At full capacity, the impoundment covers approximately 1.75 acres.

According to Soil Survey Geographic Database (SSURGO) mapping, the Site is almost entirely underlain by Sensabaugh silt loam (SeB), (3 to 8 percent slopes, rarely flooded). SeB soils are found on flood plains on alluvial plains. Parent material consists of gravelly fine-loamy alluvium derived from interbedded sedimentary rock. The mapped soil type is not considered hydric.

NWI wetlands are not mapped in the vicinity of the Site; however, wetlands may have occurred where Stream JB-NP-UNTW flowed into the farm field.

Stream JB-NP-UNTW had been piped into a plastic corrugated pipe, directing flow into the lined, freshwater pit. Approximately 260 lf of JB-NP-UNTW had been impacted from culverting and the construction of the impoundment. According to Jay Bee representatives, flow was never observed in the stream channel without a rain event and the pipe was installed as a “precautionary measure”. Representatives stated that Jay Bee had been advised to install the pipe by the site surveyor/inspector. At the time of the inspection, the stream was not flowing; however there was a spring seeping water at the base of a bedrock grade control which defined the ephemeral/intermittent transition. Downstream of this point, EPA considers the stream to be intermittent. Watershed area was approximately 9 acres upstream of the sampled reach, which would be expected to support at least intermittent flow in this ecoregion. Bed and bank were moderately continuous, stream substrate was large and well sorted, and recent alluvial deposits were present in the reach. The stream was scored as intermittent and intermittent-perennial using the NC and OH methods, respectively. No macroinvertebrates were observed in the reach at the time of the inspection; however, Doddridge County was in a moderate drought leading up to these inspections (NOAA NWS Climate Prediction Center). Under normal, non-drought flow conditions, EPA believes that the stream provides at least intermittent habitat for macroinvertebrates, salamanders, and crayfish.

Stream JB-NP-UNTNW* had been relocated and piped, directing flow around an excavated borrow pit and into the northwest corner of the larger freshwater pit (see map). The stream was not flowing at the time of the inspection. Watershed area was approximately 17 acres upstream of the sampled reach, which would be expected to support at least intermittent flow in this ecoregion. Channel development was strong. The width of the channel was approximately 3 to 5 feet wide. The stream was dominated by cobble and gravel substrate; and had defined bed and bank, and a well-developed riffle-pool sequence. Channel sinuosity, depositional bars, and recent alluvial deposits were also present. The channel was located in a defined valley. EPA believes that the stream provides at least intermittent habitat for macroinvertebrates, salamanders, and crayfish; and may be perennial in a normal/wet year. While JB-NP-UNTW is not mapped by the USGS NHD, it is mapped by 2003 SAMB mapping.

*Aerial imagery indicates that between 1996 and 2003, JB-NP-UNTNW was rerouted and ditched, potentially by the landowner. It is this rerouted ditch that had been impacted by Jay Bee.

Impact estimates (based on site measurements and GIS)

Stream	Estimated feet of impact
JB-NP-UNTW	260
JB-NP-UNTNW	320
Total	580



2/17/2012 – WVDEP Aerial Photo



WVDEP Photo: JB-NP-UNTW



WVDEP Photo: JB-NP-UNTW